

DENSITY AS AN INTRINSIC PROPERTY

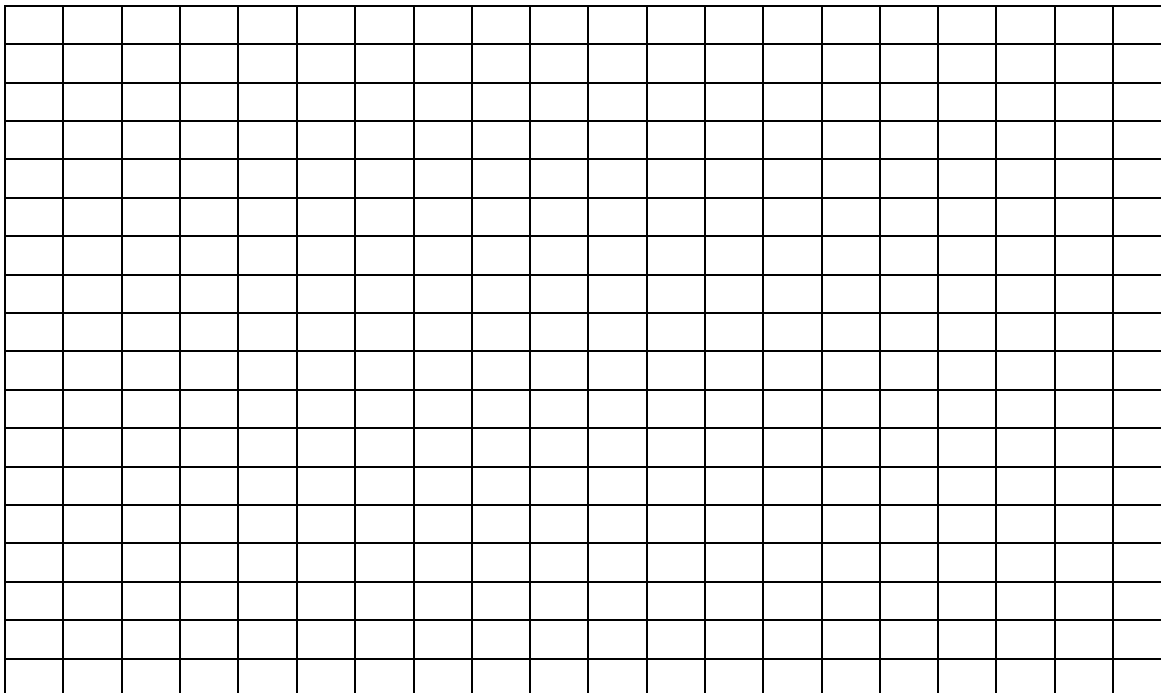
Name: _____

A. Density of Water

1. Measure the mass of an empty 100ml graduated cylinder and record in the data table (B).
2. Measure out exactly 10.0ml of water in the cylinder and record the mass of cylinder and water (A).
3. Subtract the mass of the empty cylinder and record the mass of the water in the data table (C).
4. Repeat steps 2 and 3 for 30.0ml and 50.0ml of water.

	10.0 ml	30.0 ml	50.0 ml
A. Mass of graduated cylinder and water			
B. Mass of empty graduated cylinder			
C. Mass of water			

5. Graph mass on the vertical axis versus volume on the horizontal axis of the graph below, label both axes, and connect the points with a straight line.



6. Does the density of water change as its mass changes? Explain your answer.

B. Density of a metal cylinder:

Linear measurement method for volume: You will use a ruler or caliper to measure the length and diameter of the metal cylinder, and apply this to the equation for the volume of a cylinder. Mass is always measured using the electronic balance.

Mass of metal cylinder:	
Length of metal cylinder:	
Diameter of metal cylinder:	